SIGNAL COEXPRESSION: LAB NOTEBOOK WEEKLY SUMMARY

Week 1 (1/6/2015-5/6/2015)

1. Summer training, mainly for recalling the basic techniques

2. Discussion for the plan of the main project

Week 2 (8/6/2015-12/6/2015)

1. Transformed of the parts from kit plate that would be used

2. Constructed *araBADp-lacZp* (pSB3K3-I0500-I13054) through digestion and ligation

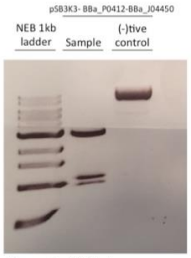
3. Attempted to transform the parts of Plux and promoter BBa_J23101 and BBa_I13522, but failed

Week 3 (15/6/2015-19/6/2015)

1. Checked *araBADp* by restriction check

2. Constructed intermediate part of *lacZp*(pSB3K3-J04450-P0412) through digestion and ligation

3. Checked intermediate part of *lacZp* by restriction check

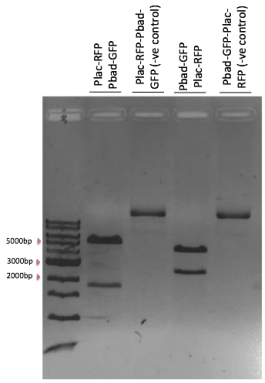


Enzyme: EcoRV, NcoI
Expected bands: 1133bp, 3029bp, 973bp

4. Constructed *araBADp-lacZp* and *araBADp-lacZp*
5. Failed to transform parts of Plux again

Week 4 (29/6/2015-3/7/2015)

1. Restriction checked Pbad-Plac and Plac-Pbad

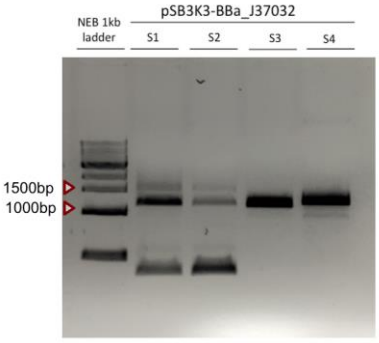


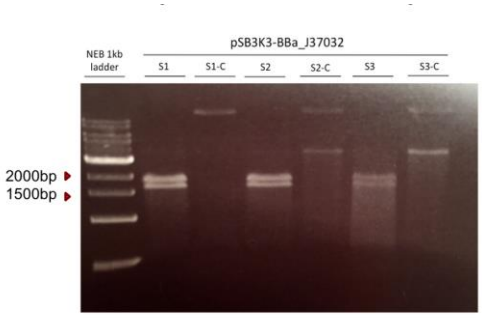
Expected bands:
Plac-Pbad: 5423, 1856
Pbad-Plac: 4589, 2681

2. Constructed Ptet through digestion and ligation
3. Prepared stock solutions for arabinose(1M) and IPTG(1M)
4. Prepared minimal medium
5. Constructed the part pSB3K3-J37032 for Plux
6. Ordering primers for Plux

Week 5 (6/7/2015-11/7/2015)

1. Checked the part pSB3K3-J37032 (Plux intermediate) by colony PCR and res. check





expected bands: 2011, 1677bp

2. Plate reading for Plac and Pbad

3. Failed to transform the template plasmid (BBa_I13018) for Plux

Week 6 (13/7/2015-18/7/2015)

1. Made glycerol stock for final constructs Pbad, Plac, Pbad-Plac and Plac-Pbad

2. Plate reading for Pbad

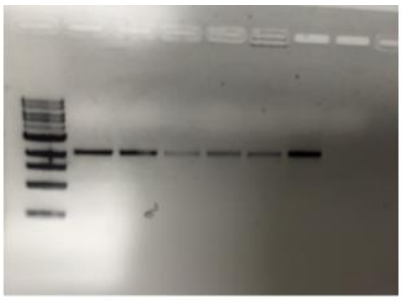
3. Failed to tranfrom the templates(BBa_A340620, BBa_S03119 and BBa_I13018) of Plux

4. Streaked plates for those would be characterisated and those which were old

5. Continued to build Ptet

Week 7 (20/7/2015-24/7/2015)

1. Checked Ptet => proved to be correct by colony PCR and restriction check



expected band: around 2000bp

2. Characterised Plac and Pbad (wrong Plac was used => no result for that)

3. Transformed the Plac plamid to obtain cells will correct construct for characterisation

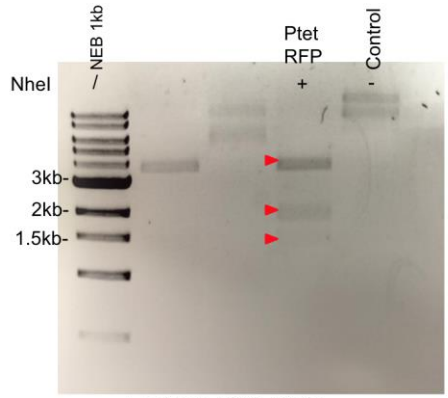
4. Constructed Ptet-Plac via digestion and ligation

5. Made stock solution of ATc(1mM)

6. Functionality test of Ptet by inoculating it with M9 minimal medium+ATc+KAN => successful

Week 8 (27/7/2015-31/7/2015)

1. ptet-plac res. checked



expected: 3782, 1813, 1373 bp

2.plac-pbad functionality test done

3.pbad better characterised

4.plac characterisation attempted, but error bar too large

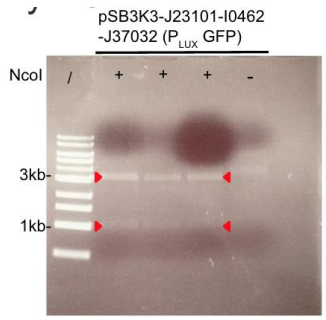
5. Gibson assembly of plux failed

Week 9 (3/8/2015-8/8/2015)

1.plac characterised again, error bar still quite large

2.*araBADp* characterised by overnight induction

3. Restriction checked plux



expected bands: 3549bp, 1379bp

Week 10 (10/8/2015-14/8/2015)

1. Characterisation of *LacZp*

2. Attempted characterisation of ptet, results were not positive

3. Attempted cloning of PLux by Gibson's Assembly- Unsucessful

Week 11 (17/8/2015-21/8/2015)

1. Characterize *araBADp-lacZp* by overnight induction with varied concentration of Arabinose and constant IPTG (once with the maximum amount and another with minimum i.e. 0mM IPTG) as inducer.

2. Cloning of LuxR

4. Attempted characterization

Week 12 (24/8/2015-28/8/2015)

1. Characterization of *araBADp-lacZp* by overnight varied induction, and using varied concentration of Arabinose and IPTG.

2. Attempted characterization of *lacZp* - unsuccessful

3. Attempted cloning of Plux GFP *lacZp* - unsuccessful

Week 13 (31/8/2015-4/8/2015)

1. Characterization of *araBADp-lacZp* by overnight varied induction, and using varied concentration of Arabinose and IPTG.

2. Characterization of *lacZp*